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Original Essay.

ART. I.—*An Eulogium on* JOHN DOANE WELLS, *M. D., late Professor of Anatomy in the University of Maryland, pronounced before the Medical Class of the University, October 29th*, 1830. *By N. R. Smith M. D., Professor of Surgery &c.*

THE opening of the last course of scientific instruction in these halls, was attended with circumstances of peculiar and anxious interest. In the person of our lamented Davidge, death had struck from our hemisphere a luminary of no ordinary lustre, though then verging to the western horizon. On that occurrence, the friends and patrons of the University of Maryland were filled with painful solicitude, in regard to the choice of an individual who should be adequate to discharge the duties of so important a trust. At length, after mature deliberation, a selection was made. One personally a stranger to almost every individual in this community, succeeded to the vacant chair. He had but few friends to urge his claims, or solicit favor—his own good name was the strong and faithful advocate, that achieved for him the honorable distinction. It was the golden opinion which he had elsewhere won from all who

knew him, which purchased for him the good will of those who confer the honors of our institution.

One year ago, at this hour, in this hall, and at this desk from which I now address you, he presented himself as a candidate for your favor. Pallid from disease and recent toil, oppressed with anxiety in regard to the reception which might be awarded to a stranger, young in years, and more modest than young, he appeared before an audience in which he would have looked in vain for the cheering sympathy of a single face which he had ever before beheld. Well do those who were then present recollect the interest of the moment. He stood before you on trial for reputation, which, to the generous aspirant, is dearer than life. But it was not merely for himself that our young champion stood forth upon that occasion;—his success was necessary to vindicate the efforts which his friends had made in his behalf—it was absolutely essential to the prosperity of an institution which claimed an elevated rank, and from which was expected extensive usefulness. He well knew that, should he not meet the public expectation, his friends and the institution would suffer almost irreparable injury.

Well do you recollect the kindling of his expressive eye, when, in the progress of his discourse, he grew animated in the cause of science. Well do you remember the rich intonations of a voice, which won the ear, the understanding and the heart. Alas! that eye is now extinguished forever, forever silent that familiar voice. That heart which throbbed with grateful emotion, on beholding the hospitable, kind, and respectful attention, with which you cheered his efforts, is now, with all its generous and open vessels, compressed into a clod of the valley.—Death, who ever loves a shining mark, has struck from our horizon the bright morning star, just as it began to shed its quickening beams among us.

Because I had longer known our lamented friend, and was more familiar with the events of his brief career, to me has been assigned, by my associates, the melancholy task of paying this last sad tribute to his memory. I come not here to

grieve the spirit of the illustrious dead with the fulsome phrase of flattery, and yet I fear that those who knew not the subject of my sketch, may regard the plain unvarnished truth, as the common form of eulogy. We believe that there is that which will "sooth the dull cold ear of death," which will "wake the silent dust;" but it is not "the note of praise," nor is it "honor's voice," however triumphant may be the strain. Those who have known our friend are well aware that here there is no occasion for exaggerated expressions. Happily for me no effort of the imagination—no rhetorical display, is necessary to give interest to that which I attempt;—the interest is in the character of my subject. All that I am ambitious to achieve, and it is more than I can accomplish, is to present a just and graphic sketch of the superiority of intellect, and the moral loveliness, displayed in the character of our departed Wells.

John Doane Wells, late Professor of Anatomy in the University of Maryland, was the eldest son of an intelligent and pious clergyman of the city of Boston, and was born on the 6th of March, 1799. In his early years, he suffered a calamity, than which none more severe can occur to youth, in the death of his father; but, fortunately, providence had spared to him the watchful guardianship of a mother whose heart and understanding amply qualified her to place him in the path which ultimately lead to eminence and usefulness. His early education was systematic and complete, but I am not aware that in the acquisition of it he enjoyed peculiar advantages. In 1817 he received the degree of Bachellor of Arts from the University of Cambrige. He then immediately commenced the study of Medicine; and this department of science having been his spontaneous choice, we may presume that he possessed for it a native predilection.

Much of the ardor and success with which Wells cultivated the medical sciences is undoubtedly to be ascribed to the example and precepts of his distinguished instructor, Dr. George C. Shattuck, of Boston, than whom but few in our country occupy a higher professional rank.

In Dr. Shattuck's office, there were at that time several young gentlemen, who were distingushed for their zeal in the pursuit of science. It was the custom for some one of them occasionally to attempt something in the form of a demonstration or lecture, in presence of his associates. Nothing could be more admirably calculated than the emulation thus excited, to develope the germs of talent, and to acquaint one's self with the character of his own native powers. This is a circumstance in the history of the intellectual career of our friend, which we would impress upon the mind of every pupil, and of every teacher.—Whatever may be supposed to contribute an important influence in rendering men great or good, like him of whom I speak, deserves to be written in letters of gold, and to be fixed on the portals of the temple of fame, that it may be read from afar.—Let the example of Wells suggest to us the employment of similar culture for the youthful mind, that it may one day produce fruits equally rich and abundant. In those early essays our friend was distinguished for industry of preparation, perspicuity of language, ease and elegance of expression.

I learn from my friend Dr. Shattuck, that, during his pupilage, Wells was greatly distinguished, for untiring assiduity, perfect docility, the ease with which he acquired knowledge, and the judgment with which he selected it. The fund of information which he then treasured up, and subsequently used with so much effect, shows that he was equally remarkable for tenacity of memory. And here let me remark that the secret of a faithful memory was in him clearly revealed. It was shown to be, not that supposed passive quality of the mind which renders it equally tenacious of "trivial fond records," and of great and interesting truths. No individual who devotes himself to science with the ardor that Wells evinced, will ever complain of the treasons of memory. The facts which he learns are delightful to the intellectual eye, and they are remembered for the same reason that the joyous scenes of our youth are not forgotten, even when events of yesterday fade from the mind.

That Wells accomplished far more during the period of his

pupilage, than is ordinarily done, is obvious, from the fact, that to him there occurred none of that period of leisure which most young men enjoy after having completed their professional studies, before they engage in the busy scenes of life. Our friend obtained his degree of Doctor of Medicine, from Harvard University, in 1820, and immediately after, he was called upon to discharge the active and responsible duties of a public station. It was in the spring of the following year that the Medical Department of Bowdoin College was first organized. Dr. Nathan Smith, late Professor of Surgery in Yale College, had yielded to the solicitations of his friends, President Allen and Professor Cleaveland, to assist them for a few weeks in the infancy of their enterprise, when not engaged in the discharge of his duties at New Haven. It not being convenient to fill at once the two chairs of Surgery and Anatomy, Professor Smith consented for a time to discharge the laborious duties of both departments. That he might do so with advantage to the pupils of the institution, he wrote to his friend Dr. Shattuck of Boston, to name to him some individual qualified to assist him as demonstrator of Anatomy. Although Wells was then but 21 years of age, and had just completed the period of his pupilage, Dr. Shattuck recommended him with perfect confidence as an individual every way qualified to aid his friend in his laborious undertaking. Dr. Wells assented to the proposition.—On repairing to Brunswick he found that in consequence of an unforseen event Professor Smith had not arrived, and that he was not expected to be present for some days. The Medical class, however, had assembled—the day, appointed for the commencement of the course, had arrived and it was necessary that the pledge of the institution, given in its advertisement, should be redeemed. This could not be done if the important duties of the chairs of Anatomy and Surgery were both to remain undischarged, even for a day. In this distressing dilemma the President called upon Dr. Wells and requested that he would immediately commence the course on Anatomy.

It is difficult to conceive of a situation calculated to try more

severely the fortitude of a modest man, than that in which Dr. Wells then found himself. The institution, in whose service he had engaged, was placed in a situation of extreme embarrassment and perplexity, from which it could alone be rescued by the single-handed efforts of one who had scarcely yet reached the maturity of manhood—of one whose years were probably less than those of most of the individuals who were assembled to listen to his instructions. He had never yet made the slightest essay of his strength before a public auditory and well knew that, under whatever circumstances he might appear, there must be some in every audience disposed to criticise censoriously. For a few days, he must necessarily be the only object on which the public eye was fixed. Should he fail, as many young men of distinguished abilities might have done, in so peculiar a situation, his sensitive and virtuous ambition would suffer a blow from which it might never recover. The page of history is every where adorned with the names of individuals, who have stood firm in the hour of danger, who have shed their blood, and sacrificed life, with a cheek that never blanched, and an eye that never wavered. But this is often a mere physical courage, a quality of the body, which circulates in our veins and is wrought into our nerves. It is a quality which too frequently graces a bad cause, in which no moral intrepidity is brought to sustain it. It is a quality of our organization which we enjoy in common with the lower orders of the creation. In the perilous situation, in which our young friend then found himself, there was danger neither to life or limb, and yet there was that impending, which, to one of sensitive ambition and generous aspirations, was infinitely more appalling. An occasion rarely occurs in the life of any individual which requires the exercise of so great a degree of moral courage and resolution, as was displayed by our intrepid friend. On the day which had been announced he was found at his post, and there acquitted himself in such a manner that it became manifest to every one, that he was born to be an ornament to his new vocation.

Dr. Smith, on his arrival, learned with pleasure the favour with which the efforts of his young assistant had been regarded, and during the progress of the course, often called upon him to perform the duties of a lecturer. These, as well as all the manual labor pertaining to this department, he discharged with singular alacrity, and surprising ability.

Before Dr. Wells had engaged to assist in the first course at Bowdoin, he had long had in contemplation a voyage to Europe, and a year's residence in some one of those populous cities, in which multiplied forms of human misery and suffering, furnish a melancholy but instructive school for the improvement of the medical philanthropist. It is evident from this circumstance (for his pecuniary means were limited) that his ambition was of an elevated and liberal character. "I had always," (said he to me, during one of the last interviews which I had with him) "from the hour that I entered College, resolved, that on completing my professional education at home, I would spend the little patrimony which might remain to me, in seeking the best sources of knowledge that the world affords." Undoubtedly he knew full well that wisdom is rarely purchased at too dear a rate. He knew full well that knowledge is both wealth and power, and that he who casts his bread upon the waters of wisdom, shall surely find it after many days. Most young men on achieving the flattering approbation which was awarded to Wells at Brunswick, would have been diverted from such a purpose, content with having done well, and with the certainty of being able to render satisfaction in his particular department. But our young friend was not to be allured from his long cherished purpose by the golden apples which fortune thus cast at his feet, at the very beginning of his career. Wells' ambition was of a nobler character,—it was a refined sentiment. I never knew an individual who possessed a more delicate sense of responsibility than our departed friend. It was this which made his ambition a christian quality, at the same time that it rendered it intense and constant. No consideration on earth would have induced him to engage in the business of medical instruction, without

qualifying himself so as to discharge his duty toward medical pupils, as to wash his hands of the blood of those whom ignorance and unskilfulness too often bring to an early grave. It was this, and not merely a vain avidity for popular applause, that inspired him with untiring zeal—that took him from his native shores, not to view the splendor of courts, and gaze on the magnificence of kings, or even to indulge in the more rational pleasure of contemplating the reliques of antiquity, and the monuments of art, but to toil in the abodes of wretchedness, to render himself painfully familiar with all the variety of suffering which has become the patrimony of our race—to walk the hospitals by day, and toil in his closet by night.

Alas, would to God that this sense of responsibility, this dread of doing less than his duty, had been less acute; would to God that his generous emulation had been content that he should be a little less transcendant! Even then, he might have risen to the summit of his profession, and at this moment would perhaps have stood before you, the pride of his country, and the ornament of our school.

It was in the summer of 1821 that he took up his residence in Paris, and I know from one who witnessed the zeal with which he devoted himself to science, that what I have stated in general terms, in regard to the manner in which his time was there employed, is literally correct. He listened to the learned and eloquent professors of that city, with that kind of interest which is felt only by those who are resolved themselves to become learned and eloquent. But his time was chiefly devoted to practical and didatic Anatomy, for this was the department to which both native taste, and adventitious circumstances seemed to have devoted him; and in Paris, undoubtedly, this fundamental branch of medical science, is taught under more favorable auspices, than in any other school of science in the world.

While he was engaged in Paris, the Trustees of the University of Maine entered upon the election of a Professor of Anatomy. Wells was not then expected to return for more than a year; it was impossible, therefore, for the institution to avail

itself of his labors during the ensuing course. He was but just bordering upon the age of manhood—extremely youthful in his appearance, and as yet almost wholly unknown to the medical world. And yet, notwithstanding these unfavourable circumstances, and although he had left behind him nothing but his own good name, and the unsolicited offices of those who admired his virtues and his talents to aid him in the canvass, he was unanimously elected to the vacant chair. Such a result was equally creditable to Professor Wells and to the enlightened body who discerned and appreciated his sterling worth. Perhaps there is nothing in which men in public stations can render more essential service to their country, than in searching out and elevating to its proper sphere modest retiring merit. Real worth is rarely obtrusive, and if those who have the gift of the rewards "which make ambition virtue" heed the importunities of the vain and arrogant, more than the silent, dignified desert of the few who will not truckle for favor, they little know the chilling, repulsive influence which they thus cast upon the efforts of those who might be truly great. Genius drops her hands in despair, when she sees the wreath which has been the end of all her hopes, the reward of all her toils, converted into a toy, by being conferred upon the brow of folly and presumption.—What member of that honorable board who elected our friend, will not be proud to declare, when he hears his eulogium uttered from one extreme of our country to the other, I was one of those who gave to the world the talents and virtues of that talented and virtuous man, by early appreciating his worth, and raising him to a post of honor and usefulness? For myself I will declare that had Wells been spared to us, to fill the measure of his fame, and to elevate the character of our school of science, I should regard the exercise of the little influence which I may have had, in contributing to place him in a sphere of more extended usefulness, as an act ever to be remembered with pleasure and with pride.

On learning the welcome intelligence of his appointment, the youthful professor by no means conceived that the end of his

ambition was accomplished. He well knew that those appointments which confer honor upon the meritorious, only heap disgrace upon the unworthy, and that the individual who is raised to an elevated station has his demerits, as well as his merits, rendered a thousand times more conspicuous. These considerations had the effect to multiply his exertions. Soon after his appointment, Professor Wells was charged with important commissions to be executed for the benefit of the institution of which he was now a part. He was furnished with funds derived from the liberality of the State, for the purpose of procuring the nucleus of an anatomical museum and a library. The valuable collections which the halls of the Bowdoin University exhibit will be lasting monuments of the faithfulness and ability with which he discharged this important trust. Although the medical department of that institution is one of the most recent in our country, yet it exhibits a library which is probably superior, with one exception, to that of any other medical seminary in our country. The first selections were made by Professor Wells, and so also were the arrangements by which additions have subsequently been made, of all the recent valuable publications. The Anatomical collection of Bowdoin is perhaps in the same degree superior. It was Wells who selected that valuable part of it which was purchased abroad, and many of the more recent preparations are the work of his own hands.

In executing these commissions and for his own improvement, Professor Wells visited several of the most important cities of the continent, and spent, to valuable purpose, considerable time in the English capital; every where making all other objects subservient to the primary one of improvement in practical and physiological Anatomy. Let it not be supposed, however, that our friend derived no other species of improvement than this. His attention was sufficiently directed to the collateral branches of medical science to render him more than respectable in every department of knowledge pertaining to the healing art. In his hours of leisure (for his recreations were scientific) he was

particularly fond of occasionally devoting his attention to Chemistry and Mineralogy. By his intimacy with his distinguished associate, Professor Parker Cleveland, so eminent as an author and teacher in these departments, it was to be expected that he should acquire a fondness for their cultivation.

Nor is it to be supposed that one possessed of native taste, and embued with classic learning, could view those scenes which have been hallowed by the great of other ages, and where the human mind has left those proud monuments which render it all but immortal, and not experience the influence of that which ripens the scholar and accomplishes the man. Although duty and inclination rendered one object dear to his heart, yet his eye was not closed against the fair variety of things which surround the path of the observing traveller, nor was the tablet of his memory shut against any thing which science loves to record.

At length, his commission sbeing performed, and the desirable attainments made, Professor Wells returned to his native country, in the winter of 1823, having been absent about eighteen months. The institution with which he was connected had endured the inconvenience resulting from the vacancy of the chair during the period of his absence, and well was it recompensed by the fund of information which he had been accumulating for its benefit. He immediately assumed the entire control of the Anatomical department, which he conducted with increasing reputation to the time of his death.

While connected with the University of Maine, Professor Wells still continued to reside, during the greater part of the year in the city of Boston, for there, opportunities for the cultivation of his favorite science were more perfect, and there too the field for the exercise of the practical duties of his profession was more extended.

Although the school in which he labored was recent, and located in a region neither populous nor much frequented, and although he was for nothing more remarkable than for the unostentatious manner in which he kept the noiseless tenor of his

way, yet his good name passed rapidly from mouth to mouth, and soon became generally known in that section of our country. A proof of this we have in the fact that on the occurrence of a vacancy in the Anatomical chair of the Berkshire Medical Institution, in Massachusetts, which is more than 200 miles from the scene of his early labors, he was earnestly solicited to accept the appointment of lecturer in that institution.—At Berkshire, the medical course was accomplished during the autumn and early winter months; but in Brunswick it did not commence till the 1st of March. This rendered the duties of the two chairs compatible with each other, and as his practice in Boston was already much interfered with by his engagements at Bowdoin, he yielded to the solicitations of his friends, and resolved for a few years to devote himself exclusively to the business of medical instruction. It was in the autumn of 1826 that he accepted the appointment at Berkshire, and from that time, till he was appointed to the chair of Anatomy in the University of Maryland, he continued to lecture alternately at Berkshire in the autumn, and at Brunswick in the spring. During the last year or two of his labors in the former institution, he taught both Anatomy and Surgery. The ability and success with which he labored to build up these two infant institutions is manifest in the almost unprecedented rapidity of their increase. The last year that he gave a complete course at Bowdoin, he taught a class of one hundred pupils, and I believe that the number of those who listened to him at Berkshire was still greater. No medical institution can flourish in which the duties of the chair of Anatomy are not discharged with talent, industry, and zeal. But we need not resort to this circumstantial proof of the success of our friend. We have abundant evidence that wherever he taught, he inspired the same kindling enthusiasm which many of my auditors have felt, when listening to the instructive and persuasive eloquence of that voice which it is hard to realize that we shall hear no more forever. In the language of one of his eastern associates, he became the pride and ornament of both the institutions in which he taught.

Among medical teachers he became the observed of all observers; the one whom all others desired most to resemble. Year after year the knowledge of his unobtrusive worth diffused itself through our community, like the circling wavelets which the falling pebble raises on the surface of a tranquil lake.

I have already alluded to the melancholy event which, in the summer of 1829, caused a vacancy in the Anatomical department of the University of Maryland. The recovery of the previous incumbent having, from the fatal illness with which he had for a long time suffered, been almost completely despaired of, the members of the Faculty of Physick were particularly interested in the reputation of such individuals as were distinguished in that department, and who might perhaps become candidates for the vacant chair. On the death of Professor Davidge, therefore, intelligence had been received in relation to many individuals who were distinguished as teachers of Anatomy. Eminent individuals in our own city, having declined to engage in the duties of so laborious a trust, the attention of many was then immediately directed to Professor Wells, whose bright and stainless fame had come to us from afar. He was nominated as a candidate for the vacant chair, it having first been ascertained from himself, that such a measure would be agreeable to his wishes. To his honor, let it be recorded, however, that he steadfastly declined all engagements which should interfere with the duties which he was then discharging toward those institutions which had been the nurseries of his early fame. Duty was to him paramount to the brightest honours, and the richest emoluments. From the first he declared that he could accept no appointment, except on the condition that he should be allowed to complete his course at Berkshire, and to deliver another at Bowdoin after he should have fulfilled his engagements in Baltimore, thus giving those institutions ample time to supply the vacancies produced by his resignation.

When it was suggested to Professor Wells that, in consequence of the late period at which the appointment must necessarily be made, and because the board of trust was till then un-

acquainted even with the names of many of the candidates, a temporary appointment merely would probably be made for the ensuing course, the tone of his reply was precisely that which we should expect from one whose soul was embued with the highest sense of honor, and who was modestly conscious of talent, and qualifications of a superior order.

"Whether," said he, "the appointment about to be made be temporary or permanent, is to me a matter of but little moment. Should I be honoured with a permanent appointment, I should accept it only to resign it immediately, unless the satisfaction which I might render should be such as would render a temporary appointment a permanent one. I believe that I have never yet been a burden to any institution, and I have no desire to fasten myself upon yours by any irrevocable engagement. The probationary appointment I much prefer, and desire that, when the labors of the winter shall have been accomplished, each party may be considered as altogether unpledged, and perfectly free to act for their respective interests."

This magnanimous course confirmed the favorable impressions which we had before received in relation to our candidate. It was the independant decision of an honest man, and of one modestly confident in that intellectual strength, which had been so often put to the test. It was the decision of one who had no desire to palm himself off for more than the current value which belonged to his intrinsic worth, and which the God of nature had stamped upon his soul.

Such an understanding having been established between the candidate and his friends in this city, it became necessary that his qualifications should be made known to the Trustees of the University. Professor Wells was then at Brunswick, and neither leisure, nor his sense of propriety, would suffer him personally to solicit commendatory letters, and the good offices of the influential in his behalf. He wrote, however, to a confidential friend in Boston, where he was best known, to procure and transmit to Baltimore, such credentials as his reputation might command. Accordingly, numerous letters from distinguished

individuals were procured—letters the very phraseology of which clearly shows that they were not obtained by importunity. Among the distinguished individuals who bore testimony to the high reputation and ample qualifications of Professor Wells, were the Hon. Daniel Webster, of Boston, Chief Justice Parker, President Quincy, and Judge Story. Some of the gentlemen who wrote were not personally acquainted with Wells, but knew his established reputation sufficiently well to speak with confidence and without reserve. It is true, indeed, that commendatory letters are obtained with so much facility among us, and are expressed in a phraseology so set and uniform, that with men of discernment, they often have but little weight.—A small degree of acumen, however, will enable one to discover by the tone of the credential, whether the writer yielded to importunity, or wrote with a willing heart and hand. This sometimes is as manifest as if the writer had interlined his expressions in sympathetic ink, with, "this I am importuned to write;" or, "this I speak sincerely and give with it my warmest good wishes." The letters which were presented by the friends of Professor Wells carried with them, in a remarkable degree, the internal evidence of earnestness and sincerity. They were letters which no man could read without being persuaded that the writers spoke of an individual of no common qualifications.

At length the day of the election arrived, and Professor Wells was duly appointed lecturer for the ensuing session. At the time of this occurrence he was in the midst of his course at Berkshire. He had there for some time been lecturing twice daily, for the purpose of completing his course at an early period, in the event of his appointment at Baltimore. On receiving intelligence of this, for the purpose of leaving behind him nothing but the most favorable impressions, he labored with almost unprecedented energy to redeem his pledge of honor where he was then engaged. He often gave three lectures daily, besides performing the greater part of the laborious preparation which is necessary in that department. Such was the zeal of his assiduity, such his delicate sense of responsibility,

that even then his willing and untiring spirit, had begun to prey upon his weak and perishable frame.

Although the course at Berkshire was not to be concluded for some weeks after the commencement of the session at Baltimore, yet the pupils to whom he was then lecturing, grateful for the fidelity with which he discharged his last duties to them, at a meeting held for the purpose, passed an unanimous resolution, releasing him from his unequalled labors, and giving him time to repair to Baltimore in season to be present at the commencement of our course.

This spontaneous expression was no ordinary act of self-denial, for the more he was admired as a lecturer, the more reluctant of course would they be to relinquish his valuable instructions. But highly as he was reverenced by them, for his eloquence and learning, he was more ardently beloved for the purity of his heart—his noble, generous sentiments, and that suavity of manner, that only true politeness which is based upon benevolence. For his advantage, and that his splendid abilities might illumine a wider sphere, they cheerfully relinquished him to us. For themselves they lamented much; for him they rejoiced more. Worn down as he was by intellectual toil, Professor Wells was scarcely in a condition to endure the fatigues of a journey to Baltimore. While on his way to this city, he was confined by sudden and severe illness in New York, and was all but lost to us at that time. Our anxiety in relation to him, was in some measure relieved, by his arrival in this city, on the 29th of October, this very evening a year. Yet still, he was languid and feeble, from recent disease and fatigue, to that degree, that every one who looked upon him was alarmed for his safety. His indomitable resolution, however, was still the same, and his untiring intellect compelled to action the enfeebled organs of a delicate frame.

Need I tell the brief story of his bright career among us? No! You that have listened to the eloquence of his lips and have reapt the fruits of his labors, have already anticipated even more than I could express. Suffice it to say that he had scarce-

ly opened his lips in our halls, when the friends of our University were seen to smile with exultation and delight. Notwithstanding the modesty of his address, there was diffused around him that halo of intellectual light, which marked him out to every observer, as one of that choice class, whose visits to us are but few and far between.

The history of American medical literature furnishes no parallel to the splendid success which, in these halls, was achieved by him of whom I speak. His lectures were attended by many individuals, who had listened to the most eloquent medical teachers both in this country and abroad, and I believe that they were unanimous in placing him in the very first class of the eloquent and learned. Envy herself was dumb, nor even dared with faint praise to condemn. When his course was at length completed, I am persuaded that there was not an individual of his class, who would not have preferred him as a teacher of anatomy, to any other individual of whose qualifications they had any knowledge. Indeed, such a sentiment was unanimously and spontaneously expressed by his pupils, before his departure from Baltimore, and also in the most decided language, by the Medical Faculty of the University.

His valedictory words on dismissing his class in February last, made an impression on the minds of his auditory which reiteration by me would neither heighten nor diminish. There was in them an implied presentiment of his early fate, and they cast an ominous gloom over our horizon, in which our star of promise was at length merged for ever.

On the 25th of February, Professor Wells bade us an eternal adieu, and hastened to the performance of other and laborious duties. His journey from this to Brunswick, in Maine, was performed at an inclement season of the year, and the whole distance by land, over rough roads, and with scarcely an hour's repose. When he had reached his place of destination, the ravages of disease were but too plainly visible. Still unquelled, however, was the spirit of the great and good, and without a day's repose, he began his labors anew. So feeble had he at

this time become, that he was obliged to be carried to the chair from which he taught, and was only sustained in his task by that mental exhileration which he never failed both to feel himself, and to diffuse around him, when he opened his lips to teach. In a few days, however, frail nature sunk beneath the effort.—Disease prevailed over resolution, and he was compelled to yield himself to the will of his physician. He then suffered an aggravation of disease which had almost proved fatal. During its continuance he wrote to his friend Professor Lincoln, now his successor in the chair of Anatomy in this institution, then resident at Burlington, in Vermont, to request that he would come to Brunswick, and discharge for him those duties which he had abandoned with so much reluctance. His friend promptly repaired to his aid, and Professor Wells, while languishing upon his bed of pain, had the consoling satisfaction, that the duties which he was never again to discharge, were performed by one trained up by himself—his pupil—friend, and brother—performed too in a manner which fully redeemed the pledge which he himself had given, and relieved his mind of its last source of anxiety.

When the course was completed at Brunswick, our friend, who had in some degree recovered from the more urgent symptoms of his attack, travelled by water to Boston. Stricken to the heart, and conscious of his fate, he fled from the world, and when science and skill had failed to save, he sought, mid the scenes of his childhood, the balm of maternal tenderness, which never fails to sooth, even when it cannot heal.

Soon after his reaching Boston, there occurred an aggravation of symptoms, indicating disease of the brain. It was then that we first heard of his alarming illness, and from the statement of his case received, abandoned nearly all hope of his recovery. He lingered till July 25th, and at peace with God and man, resigned his spirit into the hands of him who gave it.

The acts of a man's life display his character.—By their fruits ye know them. It is easy then for every one from the facts in his history which I have stated, to form a just concep-

tion of the moral and intellectual traits of him of whom I speak.

It is surprising in the extreme that one possessed of such remarkable energy of character, should have been so little under the influence of passion. Generous and amiable sentiments alone asserted their sway over his soul. Let it not be supposed that worldly wisdom was the sole basis of so perfect a character; his moral qualities were deeply rooted in christian faith, and drank their nourishment from the well of life.

The amiable and conciliatory address of our beloved associate, ever won friends which his moral worth never suffered him to lose. So cautious was he in all his complicated relations with society, to avoid inflicting even an inadvertent injury, that if I were to ask with a voice loud enough to be heard wherever he was known, where are the enemies of Wells? echo would answer—where?

Let the ambitious study the character of Wells to learn the secret art of excelling others, without creating to themselves enemies. Envy itself was transformed into love, in contemplating the goodness of his heart. No one seemed ever to regret that he was surpassed by Wells. He trod so lightly on our shoulders in mounting above our heads, that none even felt the *desire* to drag him down from his well earned eminence. If we must be excelled, he of all others was the man by whom we would wish to be surpassed. As he was our friend, we lamented him;—as he was fortunate we rejoiced at it;—as he was talented, we honored him; and although he WAS *ambitious*, none sought to mar the beauty of his fame. *There* were tears for his love;—joy for his fortune; honor for his talent, and admiration for his virtuous ambition.

In vain should I attempt to sketch with faithfulness, the traits of his superior intellect. That it was of an exalted order, the unprecedented honors which he achieved is presumptive evidence. There was no particular attribute of his understanding, which particularly stood forth in bold relief, at the expense of other qualities of the mind; and hence those who mistake eccentri-

city, or mental deformity, for genius, might have denied it to him. It would be difficult to say whether he was most distinguished for invention, for fancy, for judgment, or for memory. All these qualities he certainly possessed in an eminent degree, and they were so harmoniously blended in forming the man, that the symmetry of his mind stood before us like a beautiful Grecian Temple, the parts of which are so admirably proportioned and adjusted, that the eye wanders with delight over the whole, but is taken with no particular object. In fine, his was the scholar's eye, tongue, hand; and on him almost every excellence had fixed its seal, to give the world assurance of a man.

And here let me remark that Wells was for nothing more distinguished than for that most valuable, but too-often dispised talent, the capability of patient application. That he trusted not alone to native gifts, is sufficiently obvious from the fact that he fell a martyr to intellectual toil.

Gentlemen of the Medical Class, in what manner could I better usher you into the walks of science, than by presenting to your view an example so bright and admirable. Which of you would not desire to be like him whose portrait I have unworthily sketched. More or less so it is certainly in your power to become, for he, as you observe, relied not upon native endowments, being well aware that it is intellectual discipline which chiefly causes men so widely to differ from each other. Imitate him then in his career of virtue, fame, and usefulness. Strive to imitate him in thought, word, and deed—imitate him in all things. In all things did I say? no! not in all; I ask you not to sacrifice your lives to science, or to imitate him in his spirit of martyrdom. While you toil for that which he achieved, do not, like him, consign yourselves to a premature grave, but rather prefer to be less transcendant.

Let me not be understood, however, to declare that our lamented associate sacrificed his life on the altar of selfish ambition—no! it was that exquisite sensitiveness in relation to responsibility, which suffered him never to repose his head upon his pillow, while the smallest duty remained unaccomplished, and which at length consumed his vital spirit.

Unhappy Wells! while life was in its spring,
And thy young frame just waved her joyous wing,
The spoiler came, and all thy promise fair
Has sought the grave, to sleep for ever there.
Oh! what a noble mind was here undone,
When Science' self destroyed her favorite son;
Yes, she too much indulged thy fond pursuit;
She sowed the seed, but death has reap'd the fruit.
'Twas thine own genius gave the fatal blow,
And help'd to plant the wound that laid thee low.
So the struck eagle, stretched upon the plain,
No more through rolling clouds to soar again,
View'd his own feather on the fatal dart,
And winged the shaft that quivered in his heart.
Keen were his pangs, but keener far to feel,
He nursed the pinion that impelled the steel,
While the same plumage that had warmed his nest,
Drank the last life-drop of his bleeding breast."

When we behold the time-worn scholar, full of years and full of honors, like a shock of corn fully ripe, gathered to the tomb of his fathers, our sorrow is tempered with something of the joy of grief. We would not, if we could, confine them to earth, to linger through the decrepitude and imbecility of age, when a bright path is open to conduct them to the skies.

But alas! where is our consolation when manhood in its glory falls before the unseen destroyer.

The autumn wind rushing, wafts the leaves that are searest,
But our flower was in flushing, when blightning was nearest.

Yet let us not impiously repine. When our departed friend was chosen by us from an humbler station, the friends to whom he was then dear and useful, relinquished him to us, lamenting his loss, but rejoicing that their friend was raised to a sphere more nearly corresponding with his merits. Why then should we complain that his heavenly master hath need of him, and has called him in the midst of life and usefulness, and taken him from his earthly labors to higher and holier duties in the world of spirits? Let us then truly mourn the dead by doing as he would desire—by transferring our affections to his successor—his pupil, and his friend.

Adversaria.

Newtown, Frederick County, Va.
October 14th, 1830.

To Professor Smith,

Dear Sir,—I read with much pleasure your remarks in the last monthly Journal, upon the subject of Fractures of the Femur. It is an accident which so frequently presents itself to the notice of the country practitioner, and a deformity so frequently occurs, that all available means ought to be at the surgeon's command. If simplicity of structure, and adaptation to the ends to be attained, will recommend an apparatus to the surgeon, the one adverted to will be highly appreciated.

My opinion, as to the efficiency of this apparatus, is not based upon the simple fact of reading those remarks, but upon the exclusive management of, or the witnessing its application to, seven or eight cases. As you well recollect, several cases occurred under your management whilst I resided in the Baltimore Infirmary, and as my situation there enabled me to watch their progress with care, I feel myself better qualified to decide as to its merits.

That which I conceive the most interesting case which I have witnessed, recently came under my observation—a case of fracture of both thighs. A waggon heavily loaded with grain produced the accident; and the thighs being thrown immediately across the cut, were in the most favorable position for extensive mischief. The boy was about twelve years old. In one thigh, the fracture took place immediately below the

trochanter major; the other was lower down the shaft of the bone. The left femur was much shattered, communicating, upon the necessary manipulation, the sensation of several broken peices; the other was a simple transverse fracture.

Being hastily summoned, I found my patient about four miles from me, and about three from his master's residence. Something was immediately to be done to enable him to be carried home. Accordingly, as a temporary expedient, four or five short splints of thin board were hastily made, and adapted to the thigh. The bone being properly extended, the splints were laid around the thigh, and the whole well secured with a roller; he was then carried home on a litter. Having adjusted every thing, I hastened to a mechanic to have the apparatus, used by you in the Infirmary, made. Binder's board not being at hand, poplar plank, as the most convenient material, was made use of. There was nothing peculiar in its construction. When I returned to my patient, the question was whether I should remove the splints and bandages, put on for a temporary purpose. This I determined not to do—putting the apparatus over the whole, adjusting it well to the perinæum and knee, as upon its well fitting these parts depends much of the comfort and ease of the patient. It was then well secured with a roller. I very soon removed the splints from the under part and sides of the thigh, conceiving that the apparatus would be a sufficient support, but those upon the top of the thigh were retained, and, extended from the knee to the head of the thigh-bone. I thought that the retention of these splints had a very good effect, preventing the flexor muscles of the thigh acting upon either portion of the bone, and thereby producing deformity. Any motion laterally, or downwards, is effectually prevented by the apparatus, but the thigh being bound down only by the roller, this must become slack, and admit of muscular action; this is more effectually prevented by the splints. The apparatus well secured, as I have mentioned, admitted of motion of the hip upon the thigh, so that he was able, from the first, to be propped up. There in fact consists one of the excellencies of the apparatus

admitting of the motion of either extremity of the bone, while all the intervening portion is effectually guarded against displacement. If this be a desideratum, then the appending of the piece of iron to the upper part of the thigh-piece, and bandaging this to the body, if effectual, is at least unnecessary, as the splint would be otherwise more congenial to his feelings. When the neck of the thigh bone is fractured, then the piece of iron may be highly necessary.

The re-union of the bone in this case, was as rapid and perfect as possible, for one so extensively injured, and considering that he had the annoyance of an intense summer's heat to contend with. From the moment his thigh was placed in the splint, his sufferings were trivial; not even the entire loss of a night's rest occurred. My greatest fears were that the pieces of bone would excite inflammation and suppuration, but fortunately the broken fragments were placed in their proper relative situations, and united in the general process. The two legs are of the same length, with no deformity.

Yours respectfully,

GEORGE LYNN, Jr. M. D.

N. B. The above case was certainly managed with tact, as the result shows;—the Doctor's remarks are also judicious; but we think he does not properly appreciate the piece of the apparatus which attaches the splint to the body. We would request the attention of himself and others, to the remarks which we made in relation to its utility, in No. 8. N. R. S.

Analytical Reviews.

SELECTED FROM THE MEDICO-CHIRURGICAL REVIEW.

ART. I.—*A Practical Treatise on Diabetes: with Observations on the Tabes Diuretica, or Urinary Consumption, especially as it occurs in Children; and on Urinary Fluxes in general. With an Appendix of Dissections and Cases, illustrative of a successful Mode of Treatment: and a Postscript of Practical Directions for examing the Urine in these Diseases. By Robert Venables, M. B. Physician to the Henley Dispensary, &c. &c.*

WE must accord to Dr. Venables the credit of great zeal in the prosecution of his profession, and possession of a very respectable quantum of talent for the attainment of his laudable objects. Attached to a public institution, he loses no opportunity of acquiring that knowledge, therapeutical and pathological, which cannot easily be got, except through the instrumentality of such asyla for the indigent portions of society—and what is still more praiseworthy, he freely communicates the results of his observations and researches to his brethren and the public at large. Such conduct deserves every encouragement, however defective may be the attempts of individuals to add to the common stock of our knowledge; and the critic, who thoughtlessly deals out his strictures upon such undertakings, does not contribute to the public good, however he may plume himself on the superiority of his own penetration and acumen. It is much easier to criticise a book than write one, and the medical as well as the general reviewer should sometimes bear in mind the words of the great English satirist, when he dips his pen in gall:—

> Let those judge others who themselves excell,
> And censure freely who have written well.

Dr. Venables has undertaken a practical rather than literary history of diabetes; and if any one is disposed to ask, has he

any thing new to introduce, to compensate for the trouble of reading his book, this is his answer—"I have presented him with two facts in the history of diabetes, which are certainly worthy of attention: first, that an excessive discharge of urine is frequently a cause of tabes in children: secondly, that phosphate of iron proves, when properly administered, almost as certain an astringent upon the excessive action of the kidneys, as opium upon that of the alimentary canal." These are facts which Dr. Venables avers that he has ascertained, and he has appended the history of several cases, in order that the reader may judge for himself.

Our author differs from some respectable authorities on the pathology of diabetes. He thinks we have no occasion to look to the sugar of vegetables separated in the stomach, to account for the saccharine properties of diabetic urine. "The morbid action of the kidneys is quite sufficient to account for the fact, and it is certainly infinitely more rational, and far more consistent with the doctrines of physiology, to attribute the evolution of sugar in the urine to a wrong or perverted action of the glands." Dr. V. has not attempted any division or subdivision of diabetes into the insipid, mellitic, serous, &c. The diabetes of the adult and of the child, as far as he is acquainted, arises from the same causes, and is to be treated in the same manner —hence there are no just grounds for division of the subject.

"There is a cause of emaciation among children, which has hitherto attracted but little of the attention of the Profession. I have often observed children to all appearance very healthy up to a certain period, when suddenly the constitution changes, the child emaciates, its health declines, and, without any obvious derangement sufficient to account for the gradual deprivation of health, at last dies a most miserable object. In such cases, the head, chest, and abdomen, present no morbid appearances sufficient to account for the wasting and gradual decline of health. Accident led me to a discovery of the real seat of disease in such cases; and when the history of the complaint has been submitted to the reader, he will not be surprised that its nature and seat should have so long escaped general observation.

"Several cases of wasting having presented themselves to me, in which I was unable to detect any serious or permanent derangement of function—vital or animal,—I was at a considerable loss to account for the phenomena, as well as to direct the treatment.—Occasionally the bowels were out of order, but their healthy functions were readily restored, without, however, any sensible effect upon the progress or severity of the disease. Sometimes dyspnœa attended, but evidently of a nervous nature; for the means which were applicable to the primary or secondary diseases of the head,

speedily subdued this symptom, when those directly applicable to pulmonary affections proved, when not injurious, wholly useless.—The head often seems to be the seat of disease, if we were to judge from the dull comatose state of the patient; but yet, upon dissection, the brain in many instances presented no diseased appearance whatever. In other cases, a partial but slight degree of vascularity has been observable, by no means, however, sufficient to account for the gradual, but commonly fatal, progress of the disease. From the tumid prominent abdomen, which generally, though not universally, prevails under these circumstances, we are naturally led to anticipate traces of disease in the alimentary tube, or some of the digestive organs. But dissection proves that our speculations are unfounded, for with the exception of flatus, which would of course account for the abdominal swelling, I have not been able to discover any other morbid appearances in these organs.—When flatus has not been discovered, some light thickening of the coats of the intestines may be observed, but in no way sufficient to account for the general symptoms." 5.

Accident first led Dr. Venables to discover the real nature of of the case. Upon one occasion he was given to understand that the different functions of the child were regularly and healthily performed. The head was free from pain, the respiration natural, the bowels free, and the secretions from them healthy. He was told there was nothing remarkable in the urine, but he found that it was discharged in very great abundance. This was not noticed, as it was attributed to the inordinate quantity of fluid taken in to satisfy the thirst, with which the little sufferer was harrassed. When our author had ascertained that the wasting of the body, in this case, was attended by an excessive discharge of urine, he had little difficulty in viewing them as cause and effect. On more minute examination he discovered diseased appearances in the kidneys sufficient to account for all the symptoms. He ventures to assert that many children have been treated for hydrocephalus, mesenteric affection, rickets, &c. who have really fallen victims to this form of disease. The urine of children is so little attended to, either by mother, nurse, or medical practitioner, that derangements of this secretion too often escape detection. Diabetes indeed is seldom observed in its incipient stage; and when it has made progress, it stimulates so many other diseases, that the real character of the complaint is not developed till its history is either wholly lost, or so confounded with symptomatic or secondary affections, that it can no longer be unravelled. Our author next proceeds to a graphic description of the disease, more especially as it affects children; and this being among the most original portions of the volume, our quotaions shall be more free than usual.

"The disease seldom if ever appears till after the child has been weaned. The reason of this, perhaps, is, that the exciting causes are seldom applied till after this period. A child which has continued healthy up to this time, will perhaps suddenly lose its usual flow of spirits, become dull and inactive, and although no obvious disease may be recognisable, yet the child will not appear in its usual health. It begins after a very little time to waste in flesh and then gradually continues to emaciate. The skin becomes harsh, dry, and flabby, and seems to hang loosely about the body. The temperature is generally very much elevated, and, in the description of nurses, it will be said that 'they burn like a coal of fire.'

"In the early stages of the disease, the bowels are regular, and little or no deviation from the natural and healthy appearance of the alvine discharges is remarkable. The tongue also at the beginning indicates no symptom of disease, but when it has continued for some time, and produced some degree of fever, then the tongue becomes covered with a coat of mucus. After a continuance, the bowels begin to act irregularly, the appearance of the evacuations deviating from that of health. Sometimes they are of a greenish hue, at other times they appear natural when passed, but become greenish some time after being voided. In adult cases, constipation very generally attends.

"At a more advanced period, the abdomen seems preternaturally full and distended. The abdominal prominence frequently leads to the supposition of mesenteric disease, an opinion which is still farther confirmed by the progress of emaciation. I doubt much if the mercurial purges, which are exhibited under such circumstances, be wholly innocent. I have some reason to suspect that they have done considerable harm.

"The pulse from the first is generally accelerated, and has a hard, wiry feel. Those who are much in the habit of examining the pulse in children, would recognise in the sensation which the pulse at this time gives, an indication of very great irritation in the vascular system.

"The most remarkable symptom, however, although it frequently escapes observation, is the inordinate discharge of urine. This discharge increases in quantity so gradually, that it is not usually noticed. By the time it has become more remarkable, great thirst prevails, and hence it is neglected or unnoticed, because the parents and friends conceive an excessive discharge of urine, and an excessive consumption of fluid, as naturally associated.

"With respect to the qualities of the urine, they will be found to vary in different cases. In some, the urine appears quite limpid; in others, it appears milky, or like a mixture of chalk and water.—Sometimes it is of a pale straw colour; and in a case which is at this moment under my care, I find it is of a green colour. The urine sometimes seems milky, dense, and its specific gravity is much increased. It frequently coagulates by heat, or by the addition of the

different reagents When the quantity of coagulable matter bears any thing like an equal ratio to the watery portion of the urine, and the discharge is increased, the emaciation under such circumstances proceeds rapidly and extensively.

"As the duration ef the disease is prolonged, other symptoms, proportioned in some degree to its severity, set in. Frequently the sensorium becomes affected at an advanced stage; hence headach, vertigo, and even temporary delirium, occasionally attend. When a fatal termination takes place, the patient often dies comatose, and sometimes apoplectic.

"The skin is usually dry and harsh to the touch, and this whether there be fever or not. Generally, however, at an advanced period, there is a considerable degree of fever. As the disease advances, the patient is attacked with remittent fever, occasionally acompanied with profuse perspiration at night. This fever has been regarded as partaking of the character of hectic; and should any cough, with or without expectoration, be present, (by no means an unfrequent occurrence,) the patient may be considered as labouring under phthisis, instances of which I have occasionally seen.

"When diabetes has continued for a long period, it frequently terminates in anasarca or general dropsy. Hence the ancles become œdematous, and the patient, from having been reduced to nearly a skeleton by emaciation, becomes bloated from the accumulation of dropsical fluid in the cellular membrane.

"In children, about this period, the abdomen becomes sensibly enlarged. This enlargement, by a careless observer, may be mistaken for ascites, or some mesenteric affection. Ascites frequently supervenes in adults, but more rarely in children. Disease of the mesentery is to be regarded as an adventitious rather than an essential occurrence." 16.

In diabetes the digestive function is, of all others, the most liable to disorder. Dr. Venables thinks it the consequence rather than the cause of the diabetes.

Morbid Anatomy.

This our author confines to the kidneys and urinary organs. He avers that "diabetes never exists to any extent, without the kidneys presenting on dissection manifest changes."

"These changes vary from a trifling vascularity to severe organic derangement. Sometimes the kidneys are much inflamed, and present a florid vascular appearance, in other cases the venous system of these organs seems enlarged and turgid with blood. In a case which I examined about five years ago, the kidneys were enlarged in size, dark-coloured, and seemed turgid with blood. On cutting into the substance, there was an instantaneous effusion of fluid dark

coloured blood, as happens when a congested liver is cut into.—Sometimes the veins, on their externel surface, form a complete network of vessels. In some cases the kidneys are found in a loose, flabby state, being at the same time much increased beyond their ordinary size. They are often of a pale or ash-colour.

"In some instances the substance of the kidneys is much inflamed, and then they present an appearance of a high degree of arterial vascularity.—Their substance feels dense, and their structure firm. Frequently, under such circumstances, a whitish fluid resembling pus is found secreted in some quantity in the infundibula.

"The kidneys do not often contain abscesses, but I have seen two cases in which they were ulcerated. In these cases, the pus occasionally passed with the urine and was mistaken for flakes of coagulable lymph, which it very much resembled. The ureters are often enlarged in diameter; and a respected medical friend informed me, that he once saw a case in which the internal surface of one ureter was ulcerated. It is natural enough to expect that these vessels should be enlarged in such a disease; but I have not met with a case of ulceration. This, however, may have been owing to my not having been prepared to expect, and, consequently, not having uniformly looked for such an effect. The renal or emulgent arteries are very often found larger in diameter than natural. Generally speaking, both kidneys are diseased, but sometimes only one, or at least only one to any great extent.

"The bladder is sometimes found rather vascular, and turgid on its mucous surface; sometimes the mucous surface is inflamed. The substance of this organ, is, in some cases thickened, and very firm in its texture. I saw a case, which was examined by an eminent surgeon* in Dublin, about fifteen or sixteen years ago, in which the mucous coat of the bladder was tuberculated, and elevated into large, thickened, hard, and irregular plicæ. In several spots it was exulcerated, and, in this case, I learned that there was frequently a considerable discharge of sanio-purulent urine.

"There are diseased appearances occasionally observed in the other viscera, as the brain, lungs, heart, liver, spleen, pancreas, and the other digestive organs; but, as a great variety of these occur, and as diabetes frequently prevails without as well as with them, and sometimes with one description, and sometimes with another,—they are to be regarded rather as accidental occurrence, than as absolutely and essentially a part of the morbid anatomy of the disease, and therefore their consideration can have no place here." 20.

Remote Causes.

Among these our author ranks all those agents which inordinately stimulate the kidneys, as spirituous liquors, excesses in acids, alkalies, strong diuretics, mercurial courses, eruptive dis-

*Mr Peter Harkan.

eases, particular articles of diet, as asparagus, foreign acescent wines, intemperance of every kind, inordinate bodily exertions, blows upon the loins and region of the kidneys, strong mental emotions, hereditary disposition depending on peculiar structure of the kidneys, derangement of the digestive organs, though not so frequently as Dr. Rollo would wish us to believe.

Immediate Causes. Dissection, according to our author, has shewn that this disease is invariably attended with some manifest change in the *structure* of the kidneys, and hence he thinks that a mere functional disorder is hardly adequate to the production of the permanent affection. Of the precise nature of these organic changes we are at present ignorant.

Pathology. By this term our author means "those morbid operations by which morbid effects are produced"--in other words, the mode in which the remote or exciting causes act in producing diseases. Dr. Venables makes several weighty objections to Dr. Rollo's doctrine of diabetes.

"Were Dr. Rollo's views not otherwise objectionable, the fact that the urine, in many instances, is not saccharine, until after some continuance of the disease, would be alone sufficient to invalidate them. If the saccharine properties of the urine were owing to the separation of this substance by the kidneys, from its commixture with the blood through the faulty action of the stomach, it naturally follows that the urine, from the first augmentation of its quantity, should contain saccharine matter. Here, then, are two strong objections to Dr. Rollo's theory; first, the blood does not in every instance contain sugar; secondly, the urine is not saccharine until the disease has lasted for some considerable time." 32.

After some experiments which our author made on the state of the urine upon the ingurgitation of certain fluids, he comes to the conclusion "that diabetes more frequently arises from a peculiar excitement of the kidneys originating in the direct application of stimuli to their substance."

"At first the excitement is only occasional, and the effect subsides; but the repeated irritation of organs, we well know, brings on inflammatory action, and at last disorganization. It has been observed, in discussing the morbid anatomy of the kidneys in diabetes that they generally exhibit morbid vascular appearances, and frequently considerable disorganization of their structure. The first effect of the irritation is merely an increase of their natural functions, and more urine is separated, than under their natural action would be affected. The qualities of the urine, too, are not affected, or at least not sensibly so, at first, nor until after the repeated application of the stimuli. But, by repeated excitement, not only are their

functions increased and sensibly perverted, as is indicated by the coagulation of the urine, and its saccharine properties, but also their structure and organization become seriously affected." 38.

We shall pass over a great deal of this chapter, and also that on *diagnosis*, since few people can mistake the disease, if they make a proper investigation of the symptoms. We have seen these, however, overlooked by men of great capacity, till a patient was at the verge of the grave, and that from mere inattention. Emaciation, thirst, voracious appetite, dry harsh skin, with a frequent and copious discharge of urine, especially if it be saccharine, are sufficiently characteristic of this terrible malady.

The *Prognosis* in diabetes has been generally unfavourable. Dr. Venables is not quite so desponding, especially where the disease is early detected.

"We may generally infer, (*cæteris paribus*,) the earlier medical treatment has been instituted, the greater the probability of a perfect recovery. When, from the duration of the disease, we have reason to suspect serious organic changes in the structure and mechanism of the kidneys, we must then be more guarded in our prognosis, and not excite hopes or expectations which probably will never be realized." 48.

Our author has seen recoveries effected "under the most unpromising circumstances," but these are no more than exceptions to the general rule. Our prognosis, in fact, must be founded on the state of the constitution as a whole. Where it is bad there is little hope—where no other particular organ or function is threatened than the kidneys and their secretion, some chance is left.

Treatment.

The first object, in our author's therapœia, is to restrain the inordinate action of the kidneys, and therefore it will be necessary to search for the real exciting causes, and remove them, if possible. No treatment can be successful while the causes that produced them continue to act. If an infant, the nurses milk should be examined, and if found to be acescent, the nurse should be changed. If an adult, a strict inquiry should be made into the diet, habits of life, &c. The mere removal of causes or correction of bad habits, however, will not cure the disease, if established. There is one fact, which we have learnt from experience, namely, that excessive discharges from the system are moderated by bleeding, independent of any inflammatory condition obtaining at the time; and in this way, Dr. V. observes,

venesection may have often proved a powerful means of restraining the urinary flux, in cases where there was no indication of inflammatory action in the kidneys. But as dissection has often shewn a turgid vascularity of those organs, the utility of venesection becomes still more evident. Dr. Venables' experience coincides with that of Dr. Watt of Glascow, and some other writers, on this point of practice in diabetes; and he almost invariably adopts venesection, either as a preparatory or curative measure.

"We should not be deterred from repeating the bleedings, merely because the blood does not exhibit the buffy coat, the usually received characteristic of inflamed blood. I have in another place suggested the probability of the characters of the serum being capable of indicating an inflammatory state of the system. I have generally found that a dense milky appearance of this part of the blood indicates inflammatory action, and this independently of the appearances presented by the coagulable part. I have found the pulse rise under such ciscumstances after venesection, and a repetition of the operation required although the crassamentum should not exhibit the buffy coat, but even seem infirm and dissolved." 59.

The extent to which the measure should be carried can only be judged of by the practitioner in attendance. Repeated small bleedings, however, are preferred by our author to fewer large ones. General bleeding is the best, but if in infants, leeches to the region of the kidneys may be a good substitute. Blisters to the neighbourhood of the plethoric organ are advised by Dr. V. but caution is necessary lest they stimulate the kidneys. They should be kept open by the ceret. sabine rather than the lytta. If there is reason to suppose that considerable organic disease obtains in the kidneys or spinal marrow (a part suspected by our author) then caustic issues should be employed.

Our author makes many judicious observations on the various internal medicines which have been recommended in diabetes. He thinks they have acted more by increasing other secretions than by restraining directly the urinary discharge. After speaking of various tonics and restringents, our author proceeds thus:—

"These facts led me to the conclusion, that some of the metallic phosphates might be advantageously substituted for those with an alkaline base. The tonic and astringent properties of iron and zinc pointed them out as the best suited to the object in view. I selected iron for my first trial, and I have felt so satisfied with its powers, that I have not attempted any farther investigation. I have been really struck with the efficacy of the phosphate of iron in excessive

discharges* of urine. The quantity is rapidly reduced under the use of this salt, and indeed its qualities sensibly altered. The bulimia which also attends on diabetes is reduced, and the powers of digestion invigorated and increased.

"The phosphate of iron is readily formed by the admixture of solutions of sulphate of iron and phosphate of soda. The resulting salts are sulphate of soda, which, being soluble, passes through, while the insoluble phosphate of iron remains on the filter.

"Phosphate of iron may be given as an astringent in doses of one or two grains, which may be gradually increased to a scruple or half a drachm three or four times in the day. In children, smaller doses should be given, but the exposition of the rules for apportioning them according to the ages of patients, belong to a different branch of medicine. It may be observed, that after a continued use of any medicine the dose must be gradually increased; or otherwise its effects will begin to diminish. Sometimes it is useful to suspend the use of the medicine for a short time, and then to recommence it again. In this way the susceptibility of the system is often revived when it would not be safe to attempt the same object by any other means." 72.

Of the various disorders which accompany diabetes, and which are looked upon by some as the causes of the disease, Dr. Venables has given a full account, with very clear, and judicious directions for the treatment of them. We refer the reader to the seventh chapter for very excellent therapeutical and dietetic observations. The eighth chapter also, on Prophylaxis, is worthy of attentive perusal.

In an extensive appendix, our author has detailed eighteen cases, and two dissections of diabetes. Of these, ten are examples of the urinary flux of children, and form the most novel, and, we think, the most important part of the work. On this account we shall endeavour to convey to our readers a sketch of some of the cases to which we allude.

Case 1. A little boy, aged five years, had been ailing for nearly two years. He first became dull and listless, and then emaciated. He frequently complained of his head—eyes were prominent—pupils rather dilated—bowels occasionally disordered. In the progress of the complaint the abdomen swelled a little, and mesenteric affection was suspected. The appetite was

*"In rickets, carbonate of iron is usually combined with the phosphate of lime, and the combination is found more efficacious than either singly. I have no doubt that decomposition takes place, for in the animal laboratory, the laws of chemical affinity are set at defiance, and those compounds evolved which are most suited to the living purposes."

always good. Cough took place, and then phthisis was feared. Several practitioners were consulted, and various plans of treatment were adopted, without benefit. The child ultimately came under Dr. Venables. He also tried various means, abandoning one after the other. The little patient at length became generally dropsical and died. It was now ascertained that, previously to the dropsical symptoms, the boy had had a great flow of urine—sometimes as much as eight pints per diem. When the dropsy supervened, the urinary secretion diminished.

Dissection. There was nothing remarkable in any of the abdominal viscera, except the kidneys. These organs were found in a very diseased state. The right kidney was enlarged, and its vessels turgid with blood. The substance of the viscus felt soft and flabby to the touch, and on cutting into it, a dark-coloured fluid flowed out in abundance. The left kidney presented nearly a similar appearance, but not to so great an extent.

Case 2. A woman, who had suffered from diabetes for a long time, at length became dropsical and died. She had always complained of severe pain in the loins. On dissection, the spinal marrow was examined, and the theca vertebralis was found very vascular—the medulla spinalis itself felt unusually hard throughout its whole extent. In one spot it seemed dissolved or softened down into a kind of excavation, not apparently from any thing like ulceration, but as if it had been scooped out at that spot. The excavation was about half an inch in length, situated between the last dorsal and first lumbar vertebræ. A degree of low inflammation seemed to have pervaded a considerable portion of the column, both above and below the excavated part, as evinced by depositions of coagulable lymph, &c.

This case has been introduced with the view, of exciting the attention of practitioners to the examination of the spinal column in diabetic dissections, in order to ascertain whether that organ bears any part in the pathology of the disease. We are of opinion that, in the present case, the two affections were mere coincidences. This, however, is only matter of opinion.

Case 3. Our author accidently saw a little child about eighteen months old, that had been weaned ten months. After weaning its spirits failed, its health declined, and it gradually wasted, till it appeared like a skeleton. The appetite was, all this time, voracious, and the thirst insatiable. The abdomen was full, prominent, and hard to the touch. The bowels alternately costive and relaxed—stools frequently green—skin hot and dry, but loose and flabby—cough. It was said that the urine was natural, but, on particular enquiry, it was found to amount to

four pints in twelve hours. It had a wheyish appearance, but little taste or smell—did not coagulate by heat or nitric acid. After opening the bowels, chlorine was administered, and then two grains of the phosphate of iron, half a grain of rhubarb, and three of the pulvis aromat. thrice a day. In a fortnight or three weeks the urine was reduced to a quart in the twelve hours.—The phosphate was gradually increased, and in six weeks the urine was reduced to the natural quantity. The appetite had now entirely failed—the phosphate was left off, and proper means were used to restore the general health. The child perfectly recovered.

Case 4. A boy, aged ten years, had been declining for upwards of two years. There was now considerable emaciation, with head-ache, thirst, occasional nausea—pulse hard, frequent, and contracted—cough—dyspnœa—hurried respiration—abdomen full and prominent—bowels alternately constipated and relaxed—evacuations of a good colour—skin dry—febrile heat—appetite keen—urine eight pints per diem, containing a good deal of coagulable lymph, and was sensibly saccharine. The boy had dull obtuse pain in the back and region of the kidneys. Hydrocephalus had been suspected, and mercury employed, but no relief was obtained from any treatment. Dr. V. ordered—blood to be taken from the arm, and small doses of antimonial and Dover's powder to be given, at proper intervals—the bowels to be kept open by senna and jalap. The blood being buffed and cupped, venesection was repeated, at first weekly, and afterwards monthly, gradually diminishing the quantity. Leeches were applied to the loins, and mustard cataplasms to the region of the kidneys. The effect of this treatment was a reduction of the febrile heat, relaxation of the skin, and softening of the pulse. The urine was reduced a quart a day from the former quantity, and the coagulable matter disappeared. It became, however, more sensibly saccharine. The phosphate of iron was now administered, in combination with a light bitter and rhubarb. At first it was given in doses of three grains daily, afterwards fifteen grains. The improvement soon became remarkable—the febrile thirst and the keen appetite disappeared—the urine greatly diminished, and void of its saccharine quality. The patient soon regained flesh and strength, and quite recovered.

Case 5. A. Sandys, aged eight years, complains of weakness, head-ache, cough, dyspnœa, and a variety of other symptoms simulating phthisical affection. There was great emaciation, urgent thirst, voracious appetite, fever, hard pulse, furred tongue, and constipated bowels. The alvine discharges were unnatural,

being almost as dark as pitch—abdomen full and prominent—pain in the right hypochondrium, with manifest fulness there. The urine measured from six to eight pints in the 24 hours, being sweetish, pale, and transparent. There was pain in the loins and aching of the spine, when in motion. Pressure on the region of the kidneys excited nausea and even vomiting. This child had been delicate from birth. She had lately had small-pox, hooping-cough, scarlatina, and measles, after which the pulmonary symptoms had come on. Blood was taken from the arm, and leeches applied to the hypochondrium. Small doses of calomel were also precribed to correct the state of the liver and bowels; but it produced irritation and was left off. All other preparations of mercury also disagreed. The taraxacum and chlorine succeeded better, and the fæces became natural. No alteration in the urinary secretion—the diuresis continued excessive. The phosphate of iron, in doses of three grains, thrice a day, was given, and leeches were applied to the loins. The phosphate was gradually increased. But although it controlled the urinary discharge, it oppressed the stomach, which effect was relieved by a mustard cataplasm to that region. The sweetness of the urine was gradually but slowly removed under the continued use of the phosphate, and the discharge itself considerably reduced. Amendment took place to a certain point, but could not be pushed further. An issue was therefore inserted on each side of the spine. The general health was supported by bark, and the phosphate was continued. At the end of five months the little patient was so far convalescent that the caustic issues were removed—she was sent to the sea, whence she returned perfectly well.

We have now furnished our readers with a few examples of the numerous cases detailed at length by Dr. Venables, and also an outline of principles and modes of treatment which he has laid down. The young practitioner in particular will do well to peruse the whole work, and indeed much information will be derived from it by every class of the profession. We tender the able author our thanks for the pleasure and instruction we have received from an examination of the publication, and beg to express to him our sincere wishes for a continuance of that zeal and ability which he has shewn in the prosecution of medical science.

Abstract of Foreign Medicine.

PRACTICE OF MEDICINE.

Cold Spirituous Lotions to the Chest.—In a recent number of the Medical Gazette, is a paper signed Philalethis, which recommends in strong terms the application of Spirituous Lotions to the Chest, in many chronic inflammatory affections of that region. It will be remembered that such cooling lotions have heretofore been used in similar diseases of the abdomen and with good effects. The Lotion used by P. is 7 parts water, 1 of alcohol, and a little Eau de Cologne. It is applied across the upper part of the chest, the patient being in bed, by means of folded linen cloths—tepid first, and then cold. A young lady who had suffered two years from a cough, and who had used other remedies in vain, was relieved by it in a month. Capt. M. of the India service, was in a similar manner relieved of a cough and pain, in the region of the heart. Other cases also illustrating its utility are related.

We doubt not that this expedient will strike our readers generally as rash practice, since we know that these inflammatory affections of the thoracic viscera are generally produced, in part, by the impression of cold on the surface of the body. But it is to be observed that the cold application is made merely to the chest, and that the patient being in bed, the extremities and other parts of the body are kept warm. The probability is, also, that the remedy was used in cases in which bleeding has been premised. Now, under such circumstances, we may suppose that the remedy produces the same effect that in phrenitis cold lotions do, when applied to the head. We know that they repel the circulating fluids from that region and diminish the vascular excitement of the brain, even although the cold impression be made only on the surface. The vessels of the contained viscera are influenced, probably, sympathetically.

Remarks on accumulations of Morbid Matters in the bowels, as a cause of Nervous and other Ailments.—Our author, Mr. J. Annesley, commences this sub-section by remarking that, when the cæcum and colon become loaded, they disturb other viscera mechanically by pressure. Thus the right illiac veins and nerves are pressed upon by the distended sæcum, hence, he thinks, pains of the right lower extremity, or even partial paralysis. When the collections take place in the sigmoid flexure of the colon, the same phenomena take place in the left side.

"In addition to these symptoms, patients thus circumstanced frequently complain of pains in the loins, with occasional disorder of the urinary secretion, which is generally of a deeper color than natural, and either depositing a very thick sediment, or exhibiting a very thick, mucous-like cloud, or both. When the fæcal accumulations are carried to the greatest height, then, in addition to the above ailments, or even independently of them in some cases, an œdematous state of the lower extremities supervenes, with an inability to use them, or at least a difficulty in subjecting them to the least voluntary exertion."

Mr. A. does not deny that there may be other causes for these symptoms; but merely asserts that this is one cause. He thinks the same collections of morbid matters are often the cause of rheumatism and gout. The functions of the liver are deranged in this way—but hepatic disorder is not seldom the precursor and cause of the intestinal accumulations. The distention of the bowels by flatus or more ponderous materials, will also embarrass the function of the lungs and the action of the heart. Indeed our author is inclined to trace almost all the diseases of the liver to this loaded state of the bowels —having, no doubt, his worthy chylopoietic master, of Bartholomew's, in view. It need hardly be added that the *methodus medendi* is reiterated purgation of the most active kind.

[*Med. Chir. Review.*

PRACTICE OF SURGERY.

M. Dupuytren's sentiments on Union by the first and second Intention.—It would appear that several amputations of the upper or lower extremities were performed last Winter at the Hôtel Dieu, and afforded the surgeon of that establishment an opportunity of delivering his sentiments, and detailing the results of his experience. The ancient surgeons did not argue the advantages, or otherwise of union by the first intention, because by their modes of operating and dressing they could not well obtain it. The mode of procuring that desirable event was discovered in England, adopted with ardour in Germany, and, although employed by Dessault, condemned in the first instance, and even now but half understood and raluctantly practised in France. The military surgeons of that country, who be it remembered were most frequently in contact with the English, defended the new method by word and by deed, and the benefits it promised seduced very many of the French Savans. Isolated cases of success poured in, but as M. Dupuytren very justly remarks, stray facts are merely chaff and bran, matters of no weight and arguments of little value in determining a great question. It is only by cases en masse, by the collection and comparison of a *number* of facts, that we can arrive at general and sound conclusions. "Now such a method of examination is unfavourable to the triumph of union by the first, over union by the second intention."

M. Dupuytren is convinced that more amputation patients are lost by the new than by the ancient method, and on a careful consideration of a number of cases he finds that the results are in favour of the latter. Out of thirty amputations of limbs (large and small) in which union by the second intention was attempted, there were six fatal cases; whilst out of twenty-nine other amputations in which union by the first intention was essayed, there were nine fatal cases. M. Dupuytren has on several occasions made similar calculations. The cases are mostly those of patients suffering from suppurations of long standing, as from caries, white swellings, &c. and it is impossible to arrest such discharges with suddenness and violence, without producing great disturbance in the system. Bold or insidious inflammations of the viscera are too often the consequences, and M. Dupuytren believes that phlebitis is more common under the present method than it was under the old one.

Union by the first intention succeeds better in the hands of military surgeons than in civil hospitals, because the subjects are active and vigorous men, who have not laboured previously under local imflammations or suppurations. Such subjects bear the operation better, and the symptoms that succeed are of a less complex and questionable nature, than those which occur in hospital patients. Persons in the latter who require amputation in

consequence of accidental injuries, are cured as frequently as soldiers, and are as well adapted for union by the first intention. The advantages then of union by the first intention are far less brilliant, and its disadvantages more numerous than its partisans professed and believed. It is beginning to be abandoned, observes M. Dupuytren, in the country which gave it birth.

The able Baron himself appears to be decided on only attempting it in a few cases, and is resolved to adopt the old mode of dressing in the great majority. M. Dupuytren, however, has no intention of resuscitating the faults of the old system; of cramming the stump with lint and dressings, and tearing them away before they were properly detatched by the suppurative process; a practice which did an infinity of mischief, and rendered the 'first dressing' more excruciating and dreadful than the operation itself. M. Dupuytren's intention is merely to interpose a certain quantity of fine lint between the sides of the stump, to approximate the latter gently by adhesive straps, and finally not to withdraw the dressings until they are loosened and cast off by the suppuration. By these means a more or less copious secretion of pus is kept up on the face of the stump, and the patient is not subjected to the inconveniences and dangers arising from the sudden stoppage of an habitual drain.

On Inflammation of the Choroid Coat.—Our attention having been particularly drawn to a paper bearing the above title, from the pen of our former confrère, and a very able surgeon, Mr. Mackenzie, we were induced to con it over with care. The perusal justifying the encomia pronounced on it by our correspondent, we shall introduce it to the notice of a far wider circle of readers, than the original respectable journal in which it appeared can possibly obtain for it.

The situation and characters of the choroid coat, says Mr. Mackenzie, supply sufficient reasons for the inflammation which attacks its texture, having hitherto failed to attract attention or having bid defiance to a precise elucidation. It is generally acknowledged that iritis is occasionally attended by inflammation of the choroid, but as the arteries of the parts are distinct in course and distribution, the idea of a separate choroiditis and irritis is, *a priori*, rendered probable.

"For some time, the separate existence of choroiditis was with me rather a matter of speculation, and a conclusion from analogy, than a fact ascertained by observation. I am now convinced, however, that the choroid is sometimes the seat, almost quite independently, of inflammation; that in certain cases of ophthalmia, it is the focus of the disease, and that the neighbouring parts may be as little affected when that is the case, as the sclerotica is in iritis, or the iris in sclerotitis. That it is of importance to distinguish the disease which I am now about to describe, will appear very evident, when we consider its dangerous nature. Its symptoms, as we shall immediately see, are very different from those of any other ophthalmia; and although ultimately the whole eye may be involved by inflammation commencing in the choroid, yet choroiditis, in the early stage, exists without any signs of disease in the iris, and without any other effects upon the sclerotica and retina, than those which necessarily arise from the pressure of an inflamed and swoln membrane, placed in contiguity with other membranes, more or less susceptible of suffering from that pressure. I consider choroiditis, therefore, as completely a primary and distinct disease."

[*Med. Chir. Review.*

The present number has been delayed by unavoidable occurrences.